

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000054526	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/004819	International filing date (day/month/year) 06.05.2004	Priority date (day/month/year) 16.05.2003
International Patent Classification (IPC) or national classification and IPC		
Applicant BASF AKTIENGESELLSCHAFT		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>5</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																									
<p>4. This report contains indications relating to the following items:</p> <table><tr><td><input checked="" type="checkbox"/></td><td>Box No. I</td><td>Basis of the report</td></tr><tr><td><input type="checkbox"/></td><td>Box No. II</td><td>Priority</td></tr><tr><td><input type="checkbox"/></td><td>Box No. III</td><td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td></tr><tr><td><input type="checkbox"/></td><td>Box No. IV</td><td>Lack of unity of invention</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. V</td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VI</td><td>Certain documents cited</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VII</td><td>Certain defects in the international application</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VIII</td><td>Certain observations on the international application</td></tr></table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
<input checked="" type="checkbox"/>	Box No. I	Basis of the report																							
<input type="checkbox"/>	Box No. II	Priority																							
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability																							
<input type="checkbox"/>	Box No. IV	Lack of unity of invention																							
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																							
<input type="checkbox"/>	Box No. VI	Certain documents cited																							
<input type="checkbox"/>	Box No. VII	Certain defects in the international application																							
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
Date of submission of the demand	Date of completion of this report																								
Name and mailing address of the IPEA/EP	Authorized officer																								
Facsimile No.	Telephone No.																								

BEST AVAILABLE COPY

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/004819

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:

- ☐ international search (Rule 12.3 and 23.1(b))
☐ publication of the international application (Rule 12.4)
☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

☐ the international application as originally filed/furnished

☒ the description:

pages 1, 3, 4, 6, 7, 9-17 as originally filed/furnished

pages* 2, 5, 8 received by this Authority on 21.09.2004 by fax

pages* _____ received by this Authority on _____

☒ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1-10 received by this Authority on 07.02.2005 by fax

nos.* _____ received by this Authority on _____

☐ the drawings:

sheets _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (specify): _____

☐ any table(s) related to sequence listing (specify): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (specify): _____

☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/004819

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims 1-10	YES
		Claims	NO
	Inventive step (IS)	Claims 1-10	YES
		Claims	NO
	Industrial applicability (IA)	Claims 1-10	YES
		Claims	NO
2.	Citations and explanations (Rule 70.7)		
1.	Reference is made to the following documents:		
	D1: WO 02/064657 A (ANTONIETTI MARKUS; MAX PLANCK GESELLSCHAFT (DE); BASF AG (DE); TIARKS) 22 August 2002 (2002-08-22)		
	D2: US-A-3 639 315 (RODRIGUEZ JAIME) 1 February 1972 (1972-02-01)		
2.	Novelty		
	<p>The subject matter of the current application concerns an aqueous primary dispersion containing at least one polyurethane that can be obtained by reacting a polyisocyanate (a) with at least one polyol having the structural unit $-(CH_2CH_2O)_w-$, w being a whole number from 2 to 200 (b1), optionally a different polyol (b2), optionally a compound having at least two isocyanate-reactive groups selected from thiols and primary and secondary amines (b3), optionally a compound having one isocyanate-reactive group (b4) and optionally an ionic or potentially ionic synthesising component (c), characterised in that</p>		

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/004819

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

the structural unit $-\text{CH}_2\text{CH}_2\text{O}-$ makes up 10-90 wt.% of the polyol (b1) and at least 3 wt.% of the sum of components (a), (b1), (b2), (b3), (b4) and (c). Component (b1) has a molecular weight of 800-5000 g/mol (see claim 1).

The current application also concerns the corresponding method for producing the primary dispersion (claims 8 and 9) and the use of the primary dispersion (claim 10).

Document D1 discloses an aqueous primary dispersion containing a polyurethane based on dodecanediol ($w \neq 2-200$). The molecular weight of the alkyd resins in document D2 is not indicated, but would nevertheless appear to be more than 5000 g/mol.

The subject matter of claims 1-10 of the current application is thus novel over documents D1 and D2.

3. **Inventive step**

Document D1 is considered the closest prior art.

The subject matter of the current application differs from that of document D1 in that it uses, instead of a dodecanediol, a polyol with the structural unit $-(\text{CH}_2\text{CH}_2\text{O})_w-$, w being a whole number from 2 to 200, and with a molecular weight of 800-5000 g/mol.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/004819

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The current application addressed the problem of developing an aqueous, fine-particled primary dispersion (see page 2, lines 5-8 of the description).

That problem was solved by the use of a polyol with the structural unit $-(\text{CH}_2\text{CH}_2\text{O})_w-$, w being a whole number from 2 to 200 and having a molecular weight of 800-5000 g/mol.

This solution is not proposed in document D1 and is also not obvious from a combination of documents D1 and D2, since the molecular weight of the alkyd resin is not indicated and would appear to be more than 5000 g/mol.

The subject matter of claims 1-10 therefore involves an inventive step in relation to documents D1 and D2.

BEST AVAILABLE COPY